Green planting in urban areas is good for public health, good for the environment, good for society and good for the economy. The International Association of Horticultural Producers (AIPH) Green City Conference came to London, UK for 2014 to highlight what can be achieved in terms of urban greening and why it matters so much. The conference helped delegates in building a case for change in this important area.

**Greening Cities – why it matters…**

**Matthew Pencharz, Environment Advisor for Mayor of London**

Matthew Pencharz, Environment Advisor to the Mayor of London, told how London is already one of the world’s greenest cities, and how green infrastructure continues to be a key component of the city’s development plans.

“Since 2009, £400 million has been invested, which has included parks and pocket gardens, in order to hold its ‘green mega city’ status,” he said.

Pencharz continued, “It is an exciting time for London’s green space networks which provide links and bring Londoners together”.

By 2025, the aim is to increase London’s green space by a further 5% to make a quarter of the city green, equating to half of public space becoming green. Through this green infrastructure, London will become more resilient to weather events like the recent flooding.
Greening Cities – why it matters…

Annemarie Jorritsma, Mayor of the City of Almere, The Netherlands

Annemarie Jorritsma, Mayor of the City of Almere, The Netherlands, challenged people to participate in the search for the ideal green city, and asked: “How do we make sure the power of bricks does not overcome the power of green?” In doing so, she shared her first hand experience in the building of Almere, a new, green town built in the heart of the Netherlands in 1969.

Almere’s garden city model was influenced by the work of Ebenezer Howard and his declaration that “town and country must be married”. Its green programme included several aspects, which were to be a social model, both town and country, to have multiple cores embedded in green, and to be a self-sufficient city.

To achieve an ecologically, socially and economically sustainable future, Almere follows set principles: cultivate diversity, connect place and context, combine city and nature and anticipate change, continue innovation, design healthy systems, and to empower people to make the city.

The Floraide 2022 world expo is planned to be held in Almere, which aims to be seen as a culture, nature and recreation park; a recognisable place for events.

Greening Cities – why it matters...

Sir Richard Thompson KCVO, DM, President of the Royal College of Physicians

Prescribing gardening for improved health, Sir Richard Thompson KCVO, DM, President of the Royal College of Physicians, advised how and why green gardens are good for you. He referred to the practices of Egypt-court gardens for mental health, monasteries for ill patients, 19th century hospitals and Florence Nightingale, which all took note of the positive health effects of gardens.

“A few minutes of viewing a green garden can improve a person's psychology”, said Sir Thompson, describing how viewing scenes of nature can reduce symptoms of emotional and psychological stress such as fear, anger, sadness and muscle tension. Flowering plants promote relaxation, viewing plants reduces blood pressure and heart rate, and gardening itself reduces stress levels, he reported.

Green gardens, not concrete gardens, in hospitals were said to improve mood, reduce stress in patients, be a place of escape from stress, and increase satisfaction of patients, as well as being important for biodiversity.

The benefit of trees, particularly the ability of a single tree in an urban park to remove 48lbs of particulate matter from the air daily, was also highlighted.

Sir Thompson also advised, “There’s a gym outside your window,” referring to gardening as a form of exercise to improve amongst other things, the cardiovascular system, mood, depression, dementia and bone density. It is also said to help with lung disease, stroke disability and to counteract the effects of obesity.

Overall gardening was reported to be beneficial to: physical fitness and balance, cardiovascular and respiratory health, complications of obesity, weight loss and potential savings for NHS.

Making the Case for the Green City – Planning on Green…

Mike Kiely, President of the Planning Officers Society and Director of Planning LB Croydon

Mike Kiely, President of the Planning Officers Society and Director of Planning LB Croydon, spoke about the UK’s National Planning Policy Framework (NPPF), the London Plan, the Croydon Local Plan, and the importance of Green Infrastructure to London.

“The population of London is 8 million and is expected to grow by a million per decade, peaking at 10 million in 2030s. This presents a huge challenge in protecting, conserving and enhancing London’s network of green and open spaces”, said Kiely.

The NPPF’s green policies include the subjects of: biodiversity and green infrastructure, the risks of climate change, protecting and enhancing landscapes and minimising impacts on biodiversity, as well as the protection of open spaces.

The London Plan’s green policies focus on: the ability to protect, promote, expand and manage London’s network of green infrastructure and to incorporate elements of green infrastructure which are integrated into the wider network and encourage links to the wider public realm.

The Croydon Local Plan’s green policies offer: protection for the borough’s Metropolitan Green Belt, Metropolitan Open Land and Local Green Spaces, and a network of multi-functional open space which forms a ‘Green Grid’. It aims for: the provision and creation of green spaces, improving access and links to and through green spaces, maintaining and improving the quality, function and offer of open spaces, enhancing biodiversity across the borough, and supporting the role of productive landscapes.

Increased access to open space/nature/biodiversity, urban cooling, reducing flood risk, healthy living, and improving urban environments, were outlined as reasons why green infrastructure is important.

Making the Case for the Green City – Planning on Green…

Julia Thrift, Head of Projects and Events at the Town and Country Planning Association

Julia Thrift, Head of Projects and Events at the Town and Country Planning Association (TCPA), discussed the Green Infrastructure Partnership: what it is and why you should be involved. The multiple benefits of green infrastructure (GI) were outlined as a route to: a better quality of life and human wellbeing, improving biodiversity, protecting us against climate change and to encourage a smarter, more integrated approach to development.

From 2012 until 31 March 2014, the Green Infrastructure Partnership (GiP) was co-ordinated by the UK Government environment department - Defra, and in 2013, when Defra announced that it would no longer be able to co-ordinate the GIP, TCPA offered to take over - with no funding.

Thrift described the past garden city idea as a reaction to industrialised UK cities where so many people lived in poor conditions, and re-cited Ebenezer Howard’s call for town and country to be married in order for people to have well paid opportunities in fresh air. Recognising garden cities as a potential solution to the current housing shortage, Thrift said: “240,000 homes need to be built every year and garden cities could help this crisis”.

TCPA’s project objective is ‘to ensure existing and new mixed use urban development is adapted to the impact of climate change through improving local and regional planning policy particularly through planning to put in place green and blue Infrastructure’.

In her talk, Thrift highlighted the urban heat island effect, and how a 10% decrease in urban green can lead to a potential 8.2°C increase in surface temperatures by the 2080s. Where as a 10% increase in urban green will keep temperatures at, or below, current levels until the 2080s.

Making the Case for the Green City – Planning on Green…

Tom Butterworth, Senior Advisor for Sustainable Development at Natural England

Tom Butterworth, Senior Advisor for Sustainable Development at Natural England in the UK, opened his talk with the message that we need to create our towns and cities as ecosystems in the context of the future.

“Vision is always green when the future is positive,” he said, but went on to suggest that green space is often used as window dressing, because people are not understanding the real benefits.

Butterworth described the multi-functional role of green infrastructure as having areas for wildlife, transport, flood and recreation. Introducing the microeconomic evidence for the benefits of investment in the environment, air quality, flood control and future proofing, were listed as a few of the issues that green infrastructure can improve.

2.5% of all deaths in the UK, amounting to 48,000, are attributed to urban outdoor air pollution caused by particulate matter, which compares to 18,000 attributed to drugs and alcohol. Research in Torbay showed that Torbay’s trees removed 22.88 tonnes of O₃, 17.97 tonnes of PM₁₀, 7.91 tonnes of NO₂, and 1.3 tonnes of SO₂ annually, which leads to an annual health benefit of £1.33 million (central estimate).

In addition, 5.2 million houses which are currently at risk of flooding could be helped, as test plots in Manchester demonstrated that over a year, the addition of a street tree could reduce storm-water runoff by between 50 and 62 percent.

Butterworth went on to outline several future proofing concepts and pushed green infrastructure as a catalyst for economic growth, stating that it: encourages inward investment to an area, attracts increased visitor spending in an area, saves environmental costs, provides health benefits and generates employment.

Making the Case for the Green City – Planning on Green…

Peng Hongming, deputy Secretary General of China Flower Association and China Eco-Culture Association

Prof. Peng Zhen Hua in his presentation on urban forestry in China, presented by Dr. Hongming Peng, stressed that it is an inevitable choice to create low-carbon green cities.

The government of China attaches great importance to the construction of urban forests and is working to promote this as a crucial development strategy.

The talk focussed on the development of urbanisation in China and the need for ecological and environmental construction. Highlighting the urban heat island effect in particular, the situation of population, resources and environment is so severe that it brings great pressure on economic and social development in China.

The construction of urban forests is said to be not only a simple issue about greening and beautifying, but also an issue of livelihood connecting closely to human wellbeing. The growth of Urban Forests in China was also featured, with the major points for urban forestry development noted as the integration of the networks of forest and water to let the greening of the urban area service the development of the city. Also three transitions for the improvement of the residential environment are listed to achieve the combination of visual effect and ecological functions, the promotion of land use efficiency and an integrated urban forest ecosystem covering both urban areas and outskirts.

Visions of Development of Urban Forests in China were cited: to increase the forest resources, to promote urban and rural greening integration, and to expand international cooperation and communication.

Monica Kuo, Chair of the Department of Landscape Architecture, Chinese Culture University in Taipei spoke of Taipei experiences in green city empowerment.

An insight into the Chinese philosophy of ‘green,’ as well as green policy and achievements for the past half-century was given. Green corridors alongside roads, and the transformation of private lands into beautiful green public spaces were featured as just some of the impressive achievements. A mountain and river-friendly action plan that offered suburban trails for public use, flood prone nature conservation, urban farming and old tree protection were also featured.

Green city was also highlighted as an asset for global city competition through the likes of brown field reclamation and greenway networks to introduce further urban greening. Particular reference was made to the 2010 Taipei Flora Expo and 2013 Yulin Agricultural Expo.

Other green city elements included vertical greening, green roofs, green boulevards, wetland conservation, community empowerment and an international student green city workshop. Kuo closed the talk with a message that green is the connector to nature, the enzyme for biodiversity and the prescription for spiritual therapy.

Inspirational Green Cities…

Dr Anthony Kachenko, Nursery Garden Industry Australia

Dr Anthony Kachenko, Research and Market Development Manager at Nursery and Garden Industry Australia, shared the Australian 202020 vision to have 20% more green spaces in urban areas by 2020.

Kachenko called for collective impact by bringing government, developers and communities together to grow the demand for green spaces.

25 advocates, 110 partners, 90 projects, and over 100 articles with a total circulation of 7.8 million are working towards the campaign.

Projects for Sydney, NSW, include a free tree giveaway, $10,000 grants to streets, in road planting, street trees, seasonal pop-up gardens and a city farm. While Melbourne, which is considered to be the leader of urban forestry in Australia, has focussed on art and design competitions and Dear Tree letters.

Inspirational Green Cities…

Mark Camley, London Legacy Development Corporation

Mark Camley, Executive Director for Park Operations and Venues, London Legacy Development Corporation, inspired delegates with the delivery of the Queen Elizabeth Olympic Park. Communities immediately adjacent to the Olympic site are in the top 1% of deprivation nationally. With this in mind, the park is considered a regeneration opportunity: creating jobs, skills, enterprise and healthy citizens.

“Within 20 years, the communities that hosted the 2012 Games will have the same social and economic chances as their neighbours across London,” this was the Mayor of London and six host boroughs convergence framework and action plan for 2012-2015. As stated in the London Bid 2012, the new facilities in the Olympic Park will be open to the whole community, not just elite athletes, leading to more opportunities for everyone to participate in sport and physical activity. This will create a more inclusive, more active community, leading to a fitter society and reducing health inequalities.

The sport and healthy living objectives for the park are to: promote and deliver community sport in the parklands and sports venues, promote high performance sport athlete training in the sports venues, host a range of events from international to community sporting events, facilitate the development of sports leaders, coaches, officials and volunteers, and to design and operate the park as a catalyst for healthy living.

Three schools, nine nurseries and affordable housing will make up 35% of the park, in addition to this the park and Londoners will benefit from sustainable green flood defences, a visitor centre, twenty-nine playgrounds, and a digital and creative district.

Following this the E2020 Olympicopolis’ project for East London is set to deliver 10,000 jobs, accelerate the pace of regeneration and add £5.2bn of economic value. It will include a new University College London and Victoria and Albert Museum.

Improving health and engaging people...

Dr Val Kirby, Fellow of the UK’s Landscape Institute

Dr Val Kirby, Fellow of the UK’s Landscape Institute, spoke of the recent project Public Health and Landscape – creating healthy places, and shared the key message that how we plan, design and manage landscapes should be guided as much by importance for health as all other functions.

Kirby claimed that noise, exercise, social connectedness, perceptions of safety, wellbeing and air pollution can each be influenced by the way we treat landscapes, and that landscapes should be seen as an asset to improving health.

Over the past 50 years public spending on the National Health Service (NHS) has risen from 3.4% to 8.2% of GDP. If spending continues on the same trajectory for the next 50 years, by 2062 the UK could spend one fifth of GDP on NHS. While the relationships between behaviour, socio-economic background, health and green space are complex, most studies support the view that contact with green spaces has beneficial health effects.

Kirby outlined the five principles of a healthy place with reference to climate change, healthy lifestyles, antisocial behaviour, opportunities for working, and physical and mental health conditions.

“We must create places that encourage active lives, active travel, active play,” said Kirby. Recommendations included: a bigger role for public health in place making, using landscape in performance indicators for public health, recognising the multifunctional benefits that landscape offers, and ensuring community buy-in.

Improving health and engaging people…

Leigh Hunt, Principal Horticultural Advisor at the UK’s Royal Horticultural Society

Leigh Hunt, Principal Horticultural Advisor at the UK’s Royal Horticultural Society highlighted that approximately 25% of the land in UK cities is attributed to urban gardens, equal to half of the green space. With UK gardens containing almost 29 million trees, Hunt stressed that what we grow in our gardens and how we manage them can have a big impact and make a difference to health, city temperature, biodiversity and flooding.

For example, a 10% increase in planting in urban areas would help control the rise in summertime air temperatures predicted with climate change, and could cut heating bills by up to 30% as a result. In addition, urban gardens can help keep cities ‘above water’. The soil in gardens absorbs rain, while plants and trees intercept intense rain, slowing run off and reducing pressure on drains.

To ensure gardens are at the heart of our future towns and cities, Hunt encouraged individuals to value their domestic gardens, increase planting and learn how to grow. Collectively, organisations and governing bodies were advised to understand their importance, provide advice, information and engage with the public, include principals in new development and to invest in horticulture and horticulturists.

Improving health and engaging people…

Dan Pearson, London’s Garden Bridge planting designer

London’s Garden Bridge planting designer, Dan Pearson gave a motivational after-dinner talk, which followed the conference giving guests a present-day example of what can be achieved through urban greening.

Celebrating Great Britain’s passion for horticulture, the proposed Garden Bridge, designed by Heatherwick Studio, aims to provide a beautiful floating garden and public green space above the River Thames that can be enjoyed by visitors, Londoners and commuters alike. Not only will it offer a pedestrian only river crossing connecting South Bank with the Strand, but it also aims to: enhance the standard of living, support local wildlife, contribute to the city’s sustainability, and also generate on-going educational programmes.

Garden and Landscape Designers, Dan Pearson Studio, were appointed to develop the soft landscape planting scheme which will have five distinct character areas that reflect the development of plant species from wild pioneers to ornamental garden cultivars.

If planning consent is granted, construction is expected to commence in 2015 with the bridge opening to the public in 2018.

The conference and dinner were supported by a wide range of partners including:

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